TABLEAU KPP - 3RD FLOOR - PHASE-2 05/04/2016

1	CODES
1.1	2012 INTERNATIONAL BUILDING CODE (IBC)
1.2	2012 INTERNATIONAL MECHANICAL CODE (IMC)
1.3	2012 UNIFORM PLUMBING CODE (UPC)
1.4	2012 WASHINGTON STATE ENERGY CODE (WSEC)
2	DESIGN TYPE
2.1	TWO HEAT PUMPS ARE NEW AND PROVIDED UNDER THIS PROJECT.
2.2	MINIMIZE COST IMPACTS PER A 5-YEAR BUILDING USE WINDOW.
2.3	VENTILATION PER OSA INJECTION INTO THE RETURN-AIR PLENUM.
3	BASIS FOR HVAC LOADS
3.1	LIGHTING = 1 WATT PER SQUARE FOOT (W/SF)
3.2	SUMMER DESIGN = 83F DB / 67F WB (OUTDOOR) & 75F (INDOOR SETPOINT)
3.3	WINTER DESIGN = 12F (OUTDOOR) & 70F (INDOOR SETPOINT)
3.4	# OF PEOPLE = BASED ON SEATS SHOWN
3.5	PEOPLE LOAD = 245 SENSIBLE & 205 LATENT BTU/H
3.6	EXISTING WALL (ESTIMATED) U-VALUES = 0.248
3.7	EXISTING GLAZING (ESTIMATED) U-VALUE = 0.5 & SHADE COEFFICIENT = 0.6
3.8	WORKSTATIONS = 400 WATTS (PROGRAMMER)
3.9	WORKSTATIONS = 155 WATTS (STANDARD - CONSERVATIVE)
3.10	WORKSTATIONS = 125 WATTS (STANDARD)
3.11	LAPTOPS = 35 WATTS
3.12	50" MONITOR / TV = 150 WATTS (LCD), 100 W (LED), 300 W (PLASMA)
3.13	30" MONITOR / TV = 60 WATTS (LCD), 50 W (LED), 150 W (PLASMA)
3.14	24" MONITOR / TV = 40 WATTS (LCD), 50 W (LED), 120 W (CRT)
3.15	18" MONITOR / TV = 19 WATTS (LCD), 21 W (LED), 80 W (CRT)
3.16	15" MONITOR / TV = 15 WATTS (LCD), 18 W (LED), 65 W (CRT)
3.17	PRINTER = 160 W (SMALL OFFICE), 275 W (LARGE OFFICE)
3.18	COPIER - 400 W (NORMAL), 1100 W (CONTINUOUS)
3.19	KITCHEN = REFRIGERATOR (180 W), MICROWAVE/TOASTER/COFFE (1 KW)
4	ROOM ASSUMPTIONS:
4.1	OFFICE 318: 3 PEOPLE & 3 WORKSTATIONS (PROGRAMMER)
4.2	OFFICE 319: 4 PEOPLE, 4 LAPTOPS, & 50" LCD TV
4.3	OFFICE 320: 4 PEOPLE, 4 LAPTOPS, & 50" LCD TV
4.4	OFFICE 321: 2 PEOPLE & 2 WORKSTATIONS (PROGRAMMER)
4.5	OFFICE 322: 3 PEOPLE & 3 WORKSTATIONS (PROGRAMMER)
4.6	OFFICE 323: 3 PEOPLE & 3 WORKSTATIONS (PROGRAMMER)

Larry Nicholson

John Minato <JMinato@kirklandwa.gov> Friday, September 18, 2015 11:38 AM Austin Hanks RE: Pre-1991 WSHP Economizer Exception

Austin, I concur with your assessment. First the WSEC section C101.4.3.2 addresses alterations to existing mechanical cooling systems provided the existing economizer capacity is not to be decreased. Since you are contemplating only changing out the equipment and not the water sourced economizer portion of the system then as you outline below, the use of table C101.4.3 I, unit type 3 and option D appears to be an allowed design path. Based on the table footnotes (8), the restrictions would include that individual unit cooling capacities not exceed 90k BTUH and Option B is also complied with since the system is pre 1991.

John Minato C.B.O. Building Plans Examiner City of Kirkland iminato@kirklandwa.go 425 587-3618

From: Austin Hanks [mailto:AustinHanks@AuburnMechanical.com] Sent: Friday, September 18, 2015 10:40 AM To: John Minato < JMinato@kirklandwa.gov> Cc: Nick Dayton < Nick Dayton@AuburnMechanical.com > Subject: Pre-1991 WSHP Economizer Exception

Thanks for taking my call. As I mentioned, I'm looking at a water source heat pump system for a building built in 1982. Preliminary investigations show the system has sufficient capacity to support out the tenant improvement modification to one and a half of the floors. We are planning on using option D for unit type 3 with the exception listed in footnote 8 (see below).

Per our conversation, your understanding was this was legal as long as we are not altering the water source (cooling tower and boiler). Please confirm that this is correct. Thanks and let me know if you need more details.

TABLE C101.4.3.1 ECONOMIZER COMPLIANCE OPTIONS FOR MECHANICAL ALTERATIONS

	Option A	Option B (alternate to A)	Option C (alternate to A)	Option D (alternate to A)
Unit Type	Any alteration with new or replacement equipment	Replacement unit of the same type with the same or smaller output capacity	Replacement unit of the same type with a larger output capacity	New equipment added to existing system or replacement unit of a different type
3. Water Source Heat Pump	Efficiency: min. ¹ Economizer: C403.4.1 ²	(two of three): Efficiency: + 10/5% ⁵ Flow control valve ⁷ Economizer: 50% ⁶	(three of three): Efficiency: + 10/5% ⁵ Flow control valve ⁷ Economizer: 50% ⁶ (except for certain pre-1991 systems ⁸)	Efficiency: min. ¹ Economizer: C403.4.1 ^{2,4} (except for certain pre-1991 systems ⁸)

8. Systems installed prior to 1991 without fully utilized capacity are allowed to comply with Option B, provided that the individual unit cooling capacity does not exceed 90,000 Btuh.

> Austin Hanks, PE | Mechanical Engineer | Auburn Mechanical | C 206.402.2749 | www.auburnmechanical.com When Performance Counts

GENERAL NOTES

- 1. PROTECT ALL DUCT OPENINGS OF FIRE RATED ASSEMBLIES PER I.B.C.
- 2. INSTALL COMBINATION SMOKE FIRE DAMPERS AT ALL PENETRATIONS OF FIRE PARTITIONS, FIRE WALLS, FIRE BARRIERS AND SMOKE PARTITIONS PER I.B.C.
- 3. INSTALL SEISMIC BRACING FOR ALL DUCTWORK, EQUIPMENT AND PIPING PER I.B.C. REQUIREMENTS.
- 4. MECHANICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE, AND DO NOT NECESSARILY REFLECT EVERY REQUIRED OFF-SET, FITTING OR ACCESSORY.
- 5. COORDINATE INSTALLATION OF MECHANICAL SYSTEMS WITH BUILDING STRUCTURE AND ALL OTHER TRADES.
- 6. VERIFY VOLTAGES AT THE SITE PRIOR TO ORDERING ANY EQUIPMENT
- 7. ALL CONTROL WIRE AND CONDUIT SHALL COMPLY WITH THE NATIONAL ELECTRIC CODE.
- 8. THE LOCATIONS OF ALL ITEMS SHOWN ON THE DRAWINGS OR CALLED FOR IN THE DOCUMENTS THAT ARE NOT DEFINITELY FIXED BY DIMENSIONS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS NECESSARY TO SECURE THE BEST CONDITIONS AND RESULTS MUST BE DETERMINED BY THE PROJECT SITE CONDITIONS BEFORE BEING INSTALLED. DO NOT SCALE DRAWINGS.
- 9. ALL EQUIPMENT SHALL BE FREE FROM DEFECTS IN MATERIAL, WORKMANSHIP, AND SHALL BE OF THE KIND AND QUALITY DESCRIBED HEREIN.
- 10. ALL EQUIPMENT SHALL BE APPROVED FOR INSTALLATION IN THE STATE OF WASHINGTON AND SHALL HAVE ALL CERTIFICATIONS AND RATINGS REQUIRED TO MEET ALL ENERGY, POLLUTION, ENVIRONMENTAL, SEISMIC, ETC. CODES AND REGULATIONS.
- 11. VERIFY ALL THE MECHANICAL EQUIPMENT'S ELECTRICAL LOADS VOLTAGE/PHASE, ETC. WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING.
- 12. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED AND AS REQUIRED BY IMC, UPC, IBC, WASHINGTON STATE ENERGY CODE AND ALL APPLICABLE LOCAL AMENDMENTS.
- 13. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS, CONTRACT DOCUMENTS, AND APPLICABLE CODES AND REGULATIONS.
- 14. COORDINATE CONSTRUCTION OF ALL MECHANICAL WORK WITH ARCHITECTURAL, STRUCTURAL, ELECTRICAL WORK, ETC., SHOWN ON CONTRACT DOCUMENT

HVAC NOTES

- I. CONTRACT DOCUMENT DRAWINGS FOR MECHANICAL WORK (HVAC) ARE DIAGRAMMATIC AND ARE INTENDED TO CONVEY SCOPE AND GENERAL ARRANGEMENT ONLY. THESE PLANS ARE SCHEMATIC AND DO NOT SHOW EXACT ROUTING OR EVERY OFFSET WHICH MAY BE REQUIRED.
- 2. MATERIALS, METHODS, AND INSTALLATION SHALL COMPLY WITH THE PROVISIONS OF THE 2012 EDITIONS OF THE INTERNATIONAL MECHANICAL CODE, INTERNATIONAL BUILDING CODE, WASHINGTON STATE ENERGY CODE, & INTERNATIONAL FIRE CODE.
- 3. DUCT CONSTRUCTION AND HANGING SHALL COMPLY WITH THE 2012 IMC AND WITH CURRENT SMACNA STANDARDS. PROVIDE EARTHQUAKE RESTRAINT FOR HVAC EQUIPMENT IN ACCORDANCE WITH THE 2012 IBC.
- 4. DUCT SIZES SHOWN ON PLAN ARE THE SHEETMETAL DIMENSIONS.
- 5. EQUIPMENT SHALL BE LABELED WITH TAG NAMES PER THE PLANS.
- 6. HVAC EQUIPMENT, VALVES AND DAMPERS SHALL BE LOCATED IN EASILY ACCESSIBLE LOCATIONS. UNLESS SHOWN ON ARCHITECTURAL DRAWINGS, REQUIRED ACCESS PANELS SHALL BE PROVIDED AND INSTALLED BY THE GENERAL CONTRACTOR.
- . OPERATION AND MAINTENANCE MANUALS TO BE PROVIDED TO THE BUILDING OWNER THAT INCLUDE: SUBMITTAL DATA, NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY, HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION AND A COMPLETE OPERATIONAL NARRATIVE FOR EACH
- . COORDINATE AND PROVIDE ALL DUCT TRANSITIONS REQUIRED FOR FINAL EQUIPMENT CONNECTIONS TO FURNISHED EQUIPMENT. FIELD VERIFY AND COORDINATE ALL DUCT DIMENSIONS BEFORE FABRICATION.
- . ALL 90 DEGREE TRUNK DUCT ELBOWS SHALL BE SMOOTH-ROUND OR SQUARE WITH TURNING VANES.
- 10. CONTRACTOR SHALL LOCATE AND COORDINATE EXACT LOCATION OF DUCTWORK WITHIN THE STRUCTURE AT SITE.
- 11. ALL MECHANICAL HEATING AND VENTILATION EQUIPMENT SHALL CONFORM TO SMACNA, LOCAL AND STATE REGULATIONS FOR SEISMIC RESTRAINT (INCLUDING PIPING AND DUCTWORK). COORDINATE WITH STRUCTURAL
- 12. SUPPLY AND RETURN DUCTWORK FOR HVAC TO HAVE 1" SOUNDLINING FOR THE FIRST 6 FEET FROM UNIT DISCHARGE OUTLET. ALL DUCT LINING TO MEET AND EXCEED MOLD, HUMIDITY, EROSION RESISTANT, ETC. TO MEET IMC CHAPTER 6. ALL DUCTWORK TO BE CLASS-I AIR DUCTS. CLASS-II DUCTS SHALL NOT BE

MECHANICAL ABBREVIATIONS

	10.20117			\	
ABBR	FULL NAME	ABBR	FULL NAME	ABBR	FULL NAME
AAV	AUTOMATIC AIR VENT	EWT	ENTERING WATER TEMPERATURE	OSA	OUTSIDE AIR
AC	AIR-CONDITIONING UNIT	EXH	EXHAUST	OBD	OPPOSED BLADE DAMPER
ACH	AIR CHANGES PER HOUR	EXTR	EXTRACTOR	ос	ON CENTER
AD	ACCESS DOOR	(F)	FUTURE	OD	OUTSIDE DIMENSION
AFF	ABOVE FINISHED FLOOR	F	FIRE	OFD	OVERFLOW DRAIN
AHU	AIR HANDLING UNIT	FCO	FLOOR CLEAN OUT	OSD	OVERFLOW STORM DRAIN
AG	ABOVE GRADE	FD	FIRE DAMPER, OR FLOOR DRAIN	РОС	POINT OF CONNECTION
AGD	ANESTHIC GAS DISPOSAL	FLA	FULL-LOAD AMPS	PRV	PRESSURE REDUCING VALVE
AL	ALUMINUM	FOB	FLAT ON BOTTOM	PSI	POUNDS PER SQUARE INCH
AV	ACID VENT	FOT	FLAT ON TOP	PPL	PEOPLE, OR PERSON
AW	ACID WASTE	FS	FLOOR SINK	(R)	RELOCATE
BAS	BUILDING AUTOMATION SYSTEM	FSD	FIRE-SMOKE DAMPER	RA	RETURN AIR
BDD	BACK-DRAFT DAMPER	'/FT	FOOT, OR FEET	RAG	RETURN-AIR GRILLE
BFP	BACKFLOW PREVENTER	G	GAS LINE	RD	ROOF DRAIN
BG	BELOW GRADE	GALV	GALVANIZED	REG	REGISTER (GRILLE WITH DAMPER)
BLDG	BUILDING	GC	GENERAL CONTRACTOR	REQ'D	REQUIRED
ВОВ	BOTTOM OF BEAM	GI	GREASE INTERCEPTOR	RIO	ROUGH IN ONLY
BOD	BOTTOM OF DUCT	GPH	GALLONS PER HOUR	RL	RAIN LEADER
ВОР	BOTTOM OF PIPE	GPM	GALLONS PER MINUTE	RNA	ROUND-NECK ADAPTER
вотт	BOTTOM	GR	GRILLE	RPBP	RED. PRESSURE BACKFLOW PREV.
BS	BIRD SCREEN	GWB	GYPSUM WALL BOARD	RTU	ROOFTOP UNIT
BTU	BRITISH THERMAL UNITS	НВ	HOSE BIBB	SA	SUPPLY AIR
втин	BRITISH THERMAL UNITS PER HOUR	HE	HELIUM	SAG	SUPPLY-AIR GRILLE
BWG	BOTTOM WALL GRILLE	HHWR	HEATING HOT-WATER RETURN	SCD	SMOKE-CONTROL DAMPER
BWR	BOTTOM WALL REGISTER	HHWS	HEATING HOT-WATER SUPPLY	SD	SMOKE DAMPER, OR STORM DRAIN
С	CONDENSATE	HG	HOT-GAS LINE	SF	SQUARE FEET
CA	COMPRESSED AIR	HP	HORSE POWER, OR HEAT PUMP	SL	SOUND LINING
CAP	CAPACITY & SHEETMETAL DUCT CAP	HR	HOUR	SM	SHEET METAL
СВ	CATCH BASIN	HWR	HOT-WATER RETURN	SP	STATIC PRESSURE
cc	CONTROLS CONTRACTOR	HWS	HOT-WATER SUPPLY	SS	SANITARY SEWER, OR START/STOP
CFM	CUBIC FEET PER MINUTE	HZ	HERTZ	SSSC	SOLID-STATE SPEED CONTROL
CHWR	CHILLED WATER RETURN	ICW	INDUST. COLD WATER (NON-POTABLE)	STL	STEEL
CHWS	CHILLED WATER SUPPLY	ID	INSIDE DIMENSION	SUC	SUCTION LINE
CI	CAST IRON	IE	INVERT ELEVATION	SUSP	SUSPENDED
co	CLEAN OUT	IHW	INDUST. HOT WATER (NON-POTABLE)	T'STAT	THERMOSTAT
CO2	CARBON DIOXIDE	IHWC	INDUST. HOT WATER CIRCULATION	TA	TRANSFER AIR
COMB	COMBUSTION	"/IN	INCH (INCHES)	TC	TEMPERATURE CONTROL
CONC	CONCRETE	KW	KILOWATT	TOD	TOP OF DUCT
CONN	CONNECTION	INT	INTERLOCK	TOP	TOP OF PIPE
CWR	CONDENSER WATER RETURN	LAT	LEAVING AIR TEMPERATURE	TOS	TOP OF STEEL
cws	CONDENSER WATER SUPPLY	#/LBS	POUNDS	TP	TRAP PRIMER
CVS	CHECK VALVE	LIQ	LIQUID LINE	TV	TURNING VANES
DB	DUCT BOARD, OR DRY BULB	LWT	LEAVING WATER TEMPERATURE	TWG	TOP WALL GRILLE
DCM	DOMESTIC COLD WATER	MAV	MANUAL AIR VENT	TWR	TOP WALL REGISTER
DCBP	DOUBLE CHECK BACKFLOW PREV.	MAX	MAXIMUM	TYP	TYPICAL
DDC	DIRECT DIGITAL CONTROL	MBH	1,000 BTUH	UNO	UNLESS NOTED OTHERWISE
DHW	DOMESTIC HOT WATER	MCA	MINIMUM CIRCUIT AMPACITY	V	VENT
DHWR	DOMESTIC HOT WATER RETURN	MCD	MOTORIZED CONTROL DAMPER	VAC	VACUUM PIPING
DIFF	DIFFUSER	MD	MOTORIZED DAMPER	VAV	VARIABLE AIR VOLUME
DMPR	DAMPER	MH	MAN HOLE	VD	VOLUME DAMPER
DNIFK	DOWN	MIN	MINIMUM	VFD	VARIABLE FREQUENCY DRIVE
DWG	DRAWING	MPG	MEDIUM PRESSURE GAS	VSD	VARIABLE SPEED DRIVE
(E)	EXISTING	MSV	MEDICAL SURGICAL VACUUM	VTR	VENT TO ROOF
EA	EXHAUST AIR	MT	MOUNT	w	WASTE
EAT	ENTERING AIR TEMPERATURE	MUA	MAKE-UP AIR	WB	WET BULB
EC	ELECTRICAL CONTRACTOR	(N)	NEW	MCO	WALL CLEANOUT
EGC	EGGCRATE	N2	NITROGEN	WH	WALL HYDRANT
EER		N2O	NITROUS OXIDE	WO	WASTE OIL
	ENERGY EFFICIENCY RATIO	NG	NATURAL GAS (LOW PRESSURE)		WRAP
ELEV EMS	ELEVATION ENERGY MANAGEMENT SYSTEM	NIC	NOT IN CONTRACT	/W	WITH
EINI2	ENERGY MANAGEMENT SYSTEM	NIC	NOT IN CONTRACT	W/	AAIILI

NOM NOMINAL

O2 OXYGEN

Ø PHASE & DUCT DIAMETER

ESP EXTERNAL STATIC PRESSURE

GENERAL LEGEND

HP-1 A CFM (TYP #)

DIFFUSER / GRILLES TAG

EQUIPMENT TAG

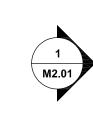


POINT OF CONNECTION

FLAG & SHEET NOTES



DETAIL SYMBOL

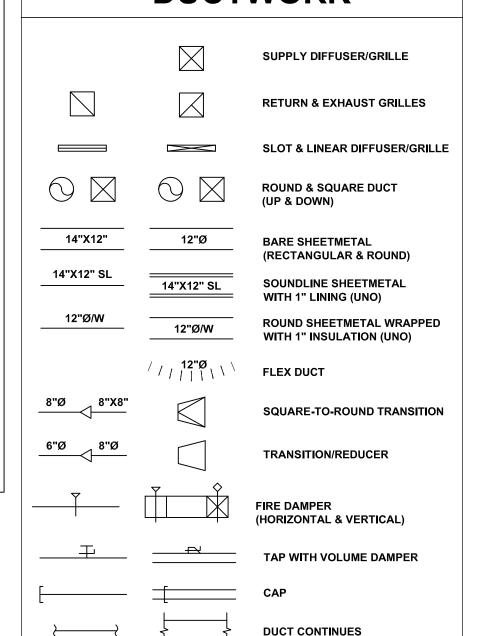


M1.00

SECTION SYMBOL

ZONE TAG 800 FT2

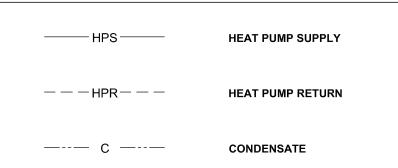
DUCTWORK



PIPING LEGEND

SUPPLY AIR

THERMOSTAT & SWITCH



LEGAL INFORMATION

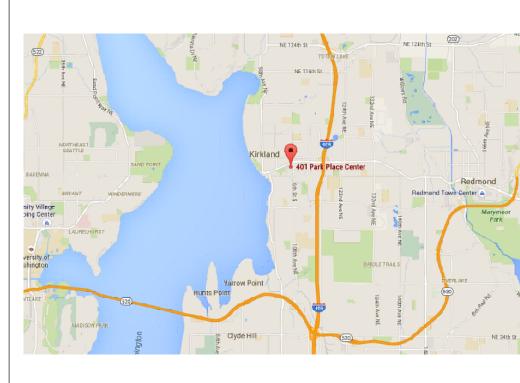
ADDRESS: 457 CENTRAL WAY, KIRKLAND, WA 98033 PARCEL #: 124870-0051

ZONING: OFFICE

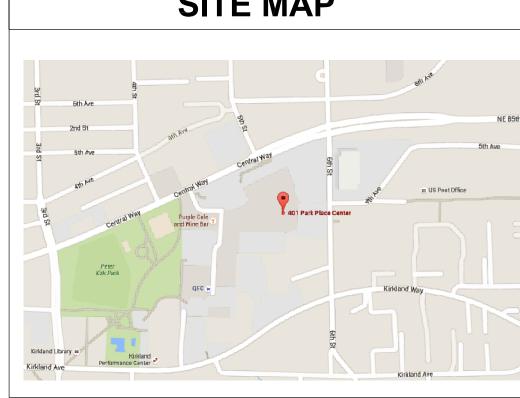
LEGAL DESCRIPTION: BURKE & FARRARS KIRKLAND DIV #39 LOTS 1 THRU PLAT TGW POR SE 1/4 OF SW 1/4 SEC 5-25-5 LY NLY OF KIRKLAND WAY & SE CENTRAL WAY & WLY OF SD PLAT OF BURKE & FARRARS KIRKLAND DIV #3 05/26/2016 BEG on N Mgn SD KIRKLAND WAY AAP 168.71 FT N OF & 708 FT W OF SE CO RNNG N 00-21-00 W 660 FT M/L TO S LN SD PLAT OF BURKE & FARRARS & TE

POR SD SUBD LY WLY OF LN BEG AT PT ON S LN SD SUBD N 89-39 E 1511.50 FT FR COR COMMON TO SECS 5 & 8 TWSP 25 RNG 5 TH N 00-21 W 990.20 FT TO NXN WITH S MGN CENTRAL AVE & TERM THIS LN ALSO LESS POR LY SLY OF LN BEG 708 FT W & 168,71 FT N OF SE COR SD SUBD AAP ON N MGN SD KIRKLAND WAY TH N 00-21 W 149 FT TH S 89-46-25 W 2.87 FT TH S 89-34-30 W 166.54 FT TH N 00-25-30 W 0.58 FT TH S 89-46-25 W 166.54 FT TO W LN SD PAR DESC & TERM THIS LN DESC

VICINITY MAP



SITE MAP



HVAC SCOPE OF WORK

- 2. PROVIDE NEW DISTRIBUTION DUCTWORK AND AIR TERMINALS FOR 2 EXISTING HEAT PUMPS TO REPLACE FAILED HEAT PUMPS...
- EXTEND/MODIFY BUILDING HEAT PUMP WATER LOOP TO NEW AND RELOCATED HEAT PUMPS. EXTEND CONDENSATE PIPING TO HEAT PUMPS.

SHEET INDEX COVER SHEET M0.01 EQUIPMENT SCHEDULE & HVAC NOTES LEVEL 3 - HVAC PLAN MECHANICAL DETAIL M5.01

ENERGY CODE NOTES

- I. THIS PROJECT CONSISTS OF EXTENDING THE EXISTING BUILDING SYSTEM TO PROVIDE ADDITIONAL COOLING CAPACITY TO AN EXISTING SPACE TO ENSURE
- 2. HVAC SYSTEMS SHALL BE BALANCED AS REQUIRED BY SECTION THE WSEC. PROVIDE BALANCING DEVICES IN ALL BRANCH DUCTS AND PIPE RUNS TO TERMINAL DEVICES AS REQUIRED BY SECTION C403.2.7.3 OF THE WSEC AND AS INDICATED ON THE CONTRACT DOCUMENTS.
- 3. ALL DUCTWORK SHALL COMPLY WITH SMACNA STANDARDS FOR CONSTRUCTION OF GALVANIZED DUCTWORK. ALL DUCTWORK SHALL BE SEALED AS REQUIRED BY SECTION C403.2.7 "DUCT AND PLENUM..." OF THE WSEC. DUCT TAPE NOT ALLOWED.
- 4. ALL DUCTWORK SHALL BE INSULATED AS REQUIRED BY SECTION C403.2.7 OF THE WSEC.
- 5. DUCTWORK SHALL BE SEALED PER C403.2.7
- 6. INSULATION OF SUPPLY, RETURN AND OUTSIDE AIR DUCTWORK SHALL MEET THE REQUIREMENTS OF C403.2.7, DAMPERS SHALL COMPLY WITH SECTION C403.2.4.
- 7. PROVIDE A COMMISSIONING PROCESS IN ACCORDANCE WITH WSEC SECTION C403.2.9 AND SHALL INCLUDE:
- 1. COMMISSIONING PLAN 2. SYSTEMS TESTING AND BALANCING
 - 3. HVAC EQUIPMENT AND CONTROLS FUNCTIONAL TESTING
- 4. SUPPORTING DOCUMENTATION IN THE FORM OF OPERATION AND MAINTENANCE AND RECORD DOCUMENTS
- 8. THE ECONOMIZER PER WSEC C101.4.3.2, FOR EXISTING SYSTEMS, CONCURRENCE OBTAINED WITH AHJ. SEE EMAIL THIS SHEET FOR DETAILS.
- 9. OCCUPANCY UNDER THIS REMODEL IS SIMILAR OR LESS THAN THE PREVIOUS TENANT AND THERE NO INCREASE IN SQFT. THERE IS NO CHANGE TO THE EXISTING OUTSIDE AIR VENTILATION SYSTEM. HIGHER COOLING LOAD IS DUE TO THE SOFTWARE DEVELOPERS OCCUPYING THIS SPACE AND THEIR HIGH LOAD COMPUTERS.



3)833-1384

M1163BA

GENERAL NOTES

PERMIT SET Revision/Issue

KIRKLAND KPP-3RD FLOOR PHASE 2 401 PARKPLACE CENTER KIRKLAND, WA 98033

MECHANICAL COVER SHEET

5/3/2016

AS-NOTED

					WA	ATEF	R SOUF	RCE HI	EAT PU	JMP SO	CHEDUL	.E									
	'AG	LOCATION	AREA SERVED	BASIS OF DESIGN	FAN	ESP IN.				A11140	COOLING CAPACITY (EER @ AHRI 13256-1 CONDITIONS)			RICAL		NOTES					
					CFM	WG.	GPM		BTU/HR	EAT -DB	EAT -WB	EWT (Deg F)	TOTAL BTUH	SENS BTUH	EER	FLA	MCA	МОСР	V/PH	[POUNDS]	
HP-3	- 3A	SOUTHEAST OFFICES - NEAR AA-8	SE EXTERIOR OFFICES #318-320	CLIMATE MASTER TC-036	1,200	0.50	9.0	8.1	45,200	80.6	66.2	86.0	34,700	25,00	12.8	12.2	14.8	25.0	208/3	203	1,2,3,4&5
HP-3	- 3B	SOUTHERN OFFICES - NEAR AA-8	S EXTERIOR OFFICES #321-323	CLIMATE MASTER TC-036	1,200	0.50	9.0	8.1	45,200	80.6	66.2	86.0	34,700	25,00	12.8	12.2	14.8	25.0	208/3	203	1,2,3,4&5
<u>NOTES</u>	:																				

1. PROVIDE SINGLE POINT POWER CONNECTION. ELECTRICAL TO PROVIDE DISCONNECT

2. PROVIDE RETURN AIR FILTER RACK WITH ONE INCH THICK THROWAWAY AIR FILTER

3. PROVIDE 24 VOLT BASIC THERMOSTAT INTERFACE CONTROL PACKAGE. 4. PROVIDE HAYES 2514 HOSE KIT WITH 2-WAY, 2-POSITION CONTROL VALVE

5. PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT

TAG	<u>.</u>	LOCATION	AREA SERVED	BASIS OF DESIGN	FAN	ESP IN.	CONDENSER	PD. FT. H20	HEATING		COOLING CAPAG	CITY (EER @ AHRI 1	3256-1 CONDITIO	NS)			ELECT	RICAL		WEIGHT	NOTES
IAC		LOGATION	AREA GERVED	BAGIO OI BEGION	CFM	WG.	GPM	1 5.1 1.1120	BTU/HR	EAT -DB	EAT -WB	EWT (Deg F)	TOTAL BTUH	SENS BTUH	EER	FLA	MCA	MOCP	V/PH	[POUNDS]	NOTE
HP-3-	1	EASTERN OFFICE SPACE	OFFICES #301, 312, 323, 314	EXISTING (TCH-042 (CM-1))	1350	0.50	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	41,100	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST
HP-3-	2A	EXTERIOR OFFICES 316/317	OFFICES #315, 316, 317	EXISTING (804-019G(01-1))	650	0.50	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	19,000	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST
HP-3-	2B	SE INTERIOR OFFICE	INTERIOR OFFICE SPACE #302	EXISTING (804-043H(3-4-B))	1450	0.50	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	42,500	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST	EXIST
HP-3-	4	(REMOVED)	REMOVED (SOUTHERN INTERIOR)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HP-3-	5	EXIST, RELOCATE TO GRIDS 22/AY	2 FLEX CONF RM	EXIST TO BE RELOCATED	400	0.50	2.8	EXIST	15,700	EXIST	EXIST	EXIST	12,500	-	-	-	-	-	-	-	1,4 & 5
HP-3-	6	EXIST, RELOCATE TO NE CORNER	NE OPEN OFFICE	EXIST TO BE RELOCATED	1,600	0.50	11.0	EXIST	59,000	EXIST	EXIST	EXIST	48,000	-	-	-	-	-	-	-	1,4 & 5
HP-3-	7	EXIST TO REMAIN	RECEPTION, PANTRY	EXISTING TO REMAIN	1,400	0.50	9.8	EXIST	57,000	EXIST	EXIST	EXIST	43,000	-	-	-	-	-	-	-	1,5 & 6
HP-3-	8	EXIST, RELOCATE TO NE CORNER	N OPEN OFFICE	EXIST TO BE RELOCATED	1,600	0.50	11.0	EXIST	59,000	EXIST	EXIST	EXIST	48,000	-	-	-	-	-	-	-	1,4 & 5
HP-3-	9	EXIST, RELOCATE TO GRIDS FF/10	3 FLEX CONF RM	EXIST TO BE RELOCATED	400	0.50	2.8	EXIST	15,700	EXIST	EXIST	EXIST	12,500	-	-	-	-	-	-	-	1,4 & 5
HP-3-	10	EXIST, RELOCATE TO NW CORNER	3017 LG CONF WEST	EXIST TO BE RELOCATED	1,100	0.50	9.8	EXIST	45,000	EXIST	EXIST	EXIST	34,000	-	-	-	-	-	-	-	1,4 & 5
HP-3-	11	EXIST, RELOCATE TO GRIDS FF/8	2 FLEX OFFICES	EXIST TO BE RELOCATED	400	0.50	2.8	EXIST	15,700	EXIST	EXIST	EXIST	12,500	-	-	-	-	-	-	-	1,4 & 5
HP-3-	12	EXIST TO REMAIN	NE PERIMETER OFFICE	EXISTING TO REMAIN	1,400	0.50	9.8	EXIST	57,000	EXIST	EXIST	EXIST	43,000	-	-	-	-	-	-	-	1,5 & 6
HP-3-	13	SW OPEN OFFICE	SW OPEN OFFICE	DAIKEN ENFINITY 024	800	0.60	6.2	11.1	29,626	80.6	66.2	86.0	24,452	17,575	16.6	7.6	9.0	15.0	208/3	195	1,2,3,4&5
HP-3-	14	Grids AA/11	3016 LG CONF RM SW	DAIKEN ENFINITY 036	1,200	0.50	9.0	8.2	44,290	80.6	66.2	86.0	36,215	25,846	17.7	13.4	16.0	25.0	208/3	115	1,2,3,4&5
HP-3-	15	Grids EE/11	3104 MED CONF RM W	DAIKEN ENFINITY 018	630	0.50	5.3	8.1	24,858	80.6	66.2	86.0	20,923	15,537	17.3	8.2	9.8	15.0	208/1	195	1,2,3,4&5
HP-3-	16	Grids CC/11	3604 WEST PERIMETER LOUNGE	DAIKEN ENFINITY 024	800	0.60	6.2	11.1	29,626	80.6	66.2	86.0	24,452	17,575	16.6	7.6	9.0	15.0	208/3	195	1,2,3,4&5
HP-3-	17	NW CORNER	NW OPEN OFFICE	DAIKEN ENFINITY 060	2,000	0.50	15.2	18.1	72,436	80.6	66.2	86.0	59,140	42,113	16.8	20.1	24.0	35.0	208/3	332	1,2,3,4&5

1. PROVIDE SINGLE POINT POWER CONNECTION. ELECTRICAL TO PROVIDE DISCONNECT
--

2. PROVIDE RETURN AIR FILTER RACK WITH ONE INCH THICK THROWAWAY AIR FILTER

3. PROVIDE 24 VOLT BASIC THERMOSTAT INTERFACE CONTROL PACKAGE.

4. PROVIDE HAYES 2514 HOSE KIT WITH 2-WAY, 2-POSITION CONTROL VALVE

5. PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT 6. PROVIDE 2-WAY, 2-POSITION CONTROL VALVE FOR INSTALLATION ON EXISTING UNIT.

	PER PLAN M	MODULAR CORE						
RAG-I RETURN GRILLE PRICE 81 E		WODULAN CONE	STEEL	LAY-IN	NA	<25	WHITE	2
TOTAL TRANSPORT OF THE PROPERTY OF THE PROPERT	PER PLAN	EGGCRATE	ALUMINUM	LAY-IN	1/2" X 1/2" GRID	<20	WHITE	1
EG-S1 EXHAUST GRILLE PRICE 635L F	PER PLAN SIN	IGLE DEFLECTION	ALUMINUM	SURFACE	1/2" @ 45-DEG	<20	WHITE	
RAG-H TRANSFER GRILLE PRICE 91L F	PER PLAN HEA	AVY-DUTY GRILLE	STEEL	SURFACE	1/2" @ 45-DEG	<20	WHITE	
RAG-S1 RETURN GRILLE PRICE 530 F	PER PLAN SIN	IGLE DEFLECTION	STEEL	SURFACE	3/4" @ 45-DEG	26	WHITE	

2. PROVIDE SQUARE-TO-ROUND ADAPTOR

		TABLEAU KPP - D	UCTWORK	MATERI	AL LIST			
Duct System	Duct Type	Materials	Fitting	Insulation	SMACNA Pressure Class	Comments	Manufacturer/ Material	Auburn Spec#
LOW PRESSURE SUPPLY PLENUM	SQUARE / RECTANGLE	1" LINED GALVANIZED DUCT	SMACNA +1 PRESSURE	1" LINING	2" PRESSURE CLASS	-	-	221116
LOW PRESSURE SUPPLY DUCT	SQUARE / RECTANGLE	GALVANIZED DUCT	SMACNA +1 PRESSURE	N/A	2" PRESSURE CLASS	-	-	221116
LOW PRESSURE SUPPLY DUCT	ROUND	GALVANIZED DUCT	SMACNA +1 PRESSURE	N/A	2" PRESSURE CLASS	-	-	221116
RETURN PLENUM	SQUARE / RECTANGLE	1" LINED GALVANIZED DUCT OR DUCTBOARD	SMACNA +1 PRESSURE	N/A	2" PRESSURE CLASS	-	-	221116
RETURN DUCT	ROUND	1" LINED GALVANIZED DUCT	SMACNA +1 PRESSURE	N/A	2" PRESSURE CLASS	-	-	221116
EXHAUST DUCT	ROUND	GALVANIZED DUCT	SMACNA +1 PRESSURE	N/A	2" PRESSURE CLASS	-	-	221116

Service ID	Service Category	Materials	Sizes and J	oint Methods	Restriction	Comments	Manufacturer/	Auburn Spec#
Selvice ID	Scr vice category	water lais	Max. 1/2"-2"	Min. 2-1/2 & Larger	Restriction	Comments	Material	
CondDrain	P-DRAINAGE	Type M ProPress	ProPress	Grooved	-	Match Existing	-	221319
CondDrain	P-DRAINAGE	CPVC-Sch40	Solvent	Solvent	-	-	-	221319
CondDrain	P-DRAINAGE	Type L or M Sweat 1/2"-8"	Solder	Solder	-	Match Existing	-	221319
HPR	HEAT PUMP WATER RETURN	ProPress Type L	ProPress	n/a	-	Match Existing	-	232113
HPR	HEAT PUMP WATER RETURN	Sweat Type L	Solder	0	-	Match Existing	-	232113
HPR	HEAT PUMP WATER RETURN	Grooved A53B Sch40 _ 2" - 12"	0	Grooved	-	Match Existing	-	232113
HPR	HEAT PUMP WATER RETURN	ButtWeld A53B Sch40	0	ButtWeld	-	Match Existing	-	232113
HPR	HEAT PUMP WATER RETURN	Threaded A53A Sch40	Threaded	n/a	-	Match Existing	-	232113
HPR	HEAT PUMP WATER RETURN	Mega Press Sched 40	Mega Press	n/a	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	ProPress Type L	ProPress	n/a	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	Sweat Type L	Solder	n/a	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	ButtWeld A53B Sch40	n/a	Grooved	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	Grooved A53B Sch40 _ 2" - 12"	0	Grooved	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	Threaded A53A Sch40	Threaded	n/a	-	Match Existing	-	232113
HPS	HEAT PUMP WATER SUPPLY	Mega Press Sched 40	Mega Press	n/a	-	Match Existing	-	232113

		TRAN	SFER	FAN S	CHED	ULE		
TAG	LOCATION	BASIS OF DESIGN	FAN CFM	STATIC PRESSURE	NOISE [SONES]	ELECTRICAL	AMPS	NOTES
EF-3-1	ROOM #303	PANISONIC FV-11-15VK1	110-130-150	0.25"	0.3 - 0.5 - 0.7	120V-1P	0.07 - 0.10 - 0.13	1,2,3
NOTES:								
	CT BY ELECTRICA	L CONTRACTOR. (LOWEST SETTING)		1				

3. 6" DUCT TO EXHAUST TO PLENUM.

09 May 2016

City of Kirkland Per Drmance count.

Reviewed by AHaupt Valley Hwy. Auburn, VA 98071
Tel: (53)838-9780
Fax: (53)833-1384
AU-B J-RM1163BA

GENERAL NOTES

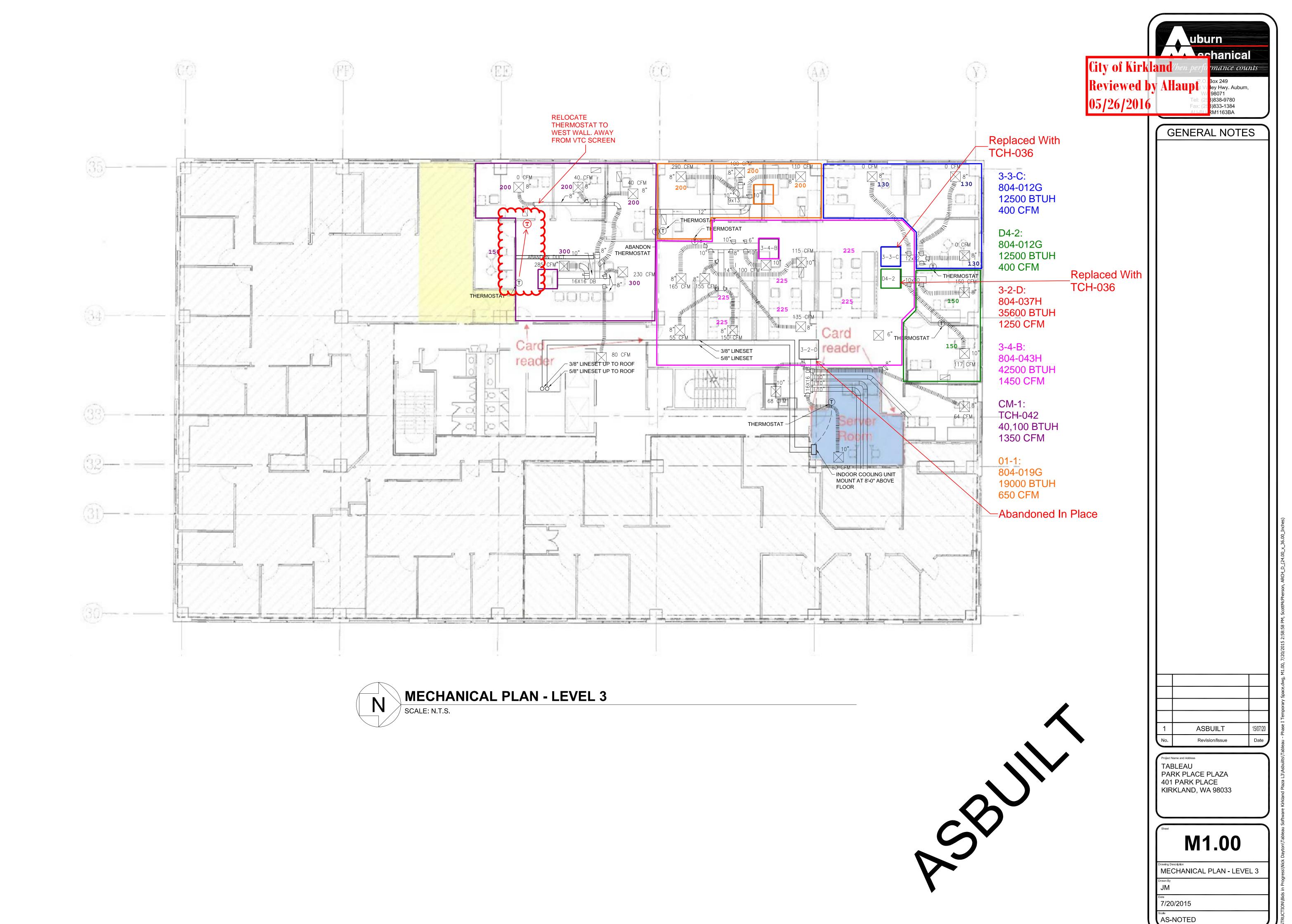
KIRKLAND KPP-3RD FLOOR PHASE 2 401 PARK PLACE CENTER KIRKLAND, WA 98033

PERMIT SET

M0.02

EQUIPMENT SCHEDULE

5/9/2016



MUST REMAIN ON JOB SITE

NOTICE

HOURS OF WORK: 7AM TO 8PM MON-FRI 9AM TO 6PM SAT. NO WORK SUNDAYS & **HOLIDAYS (PER KZC SEC. 115.25) Exceptions must be approved in** writing by Planning Official

NOTES:

FLAG NOTES:

1. INSTALL DIFFUSERS PER 4/M5.0

12x24 RAG-L INSTALL PER 2/M5.01

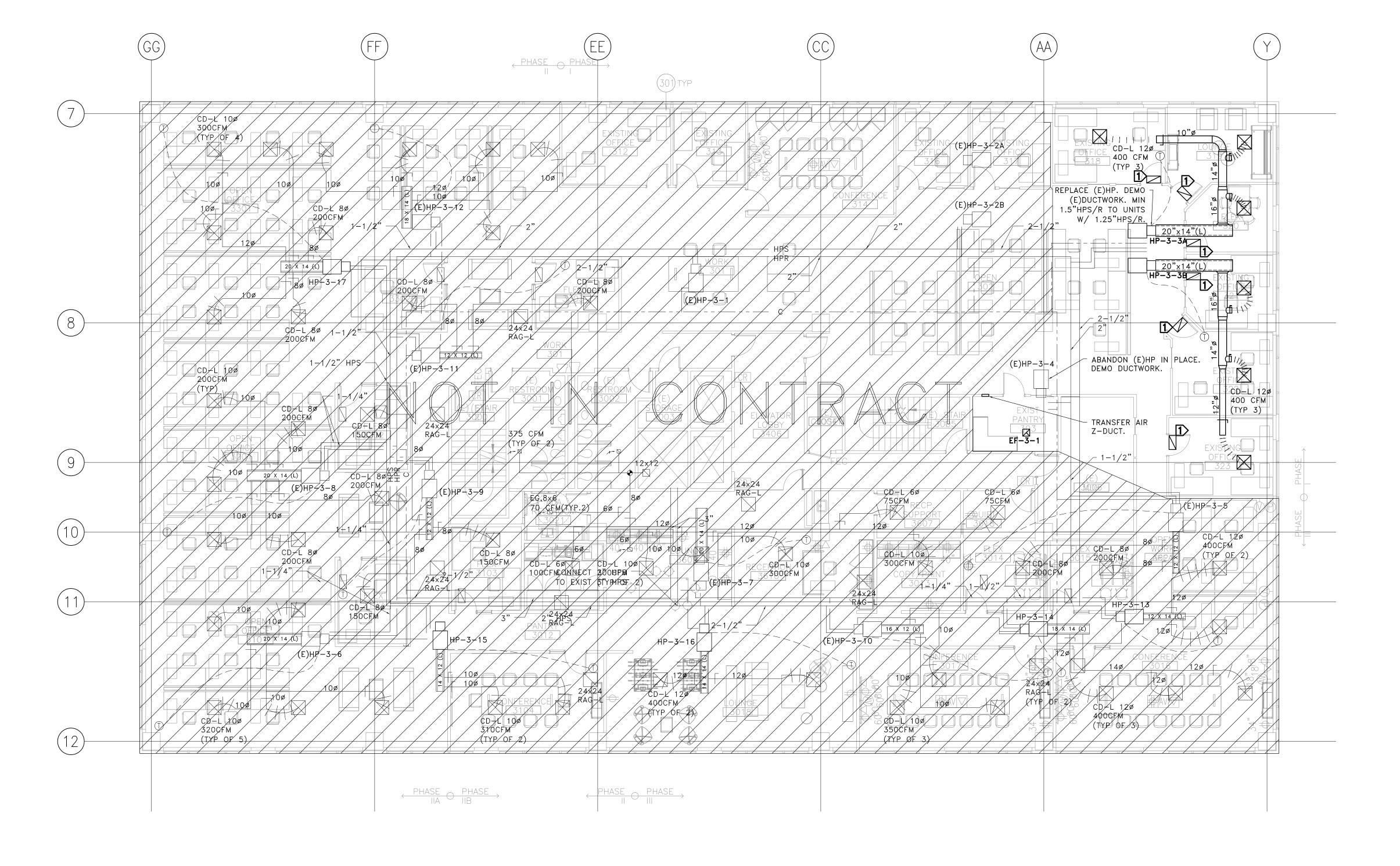
2. INSTALL HEAT PUMPS PER 1/M5 City of Kirkland

Reviewed by AHaupt

05/26/2016

). Box 249 (alley Hwy. Auburn, (A 98071 (53)838-9780 (53)833-1384 J-RM1163BA

GENERAL NOTES



PERMIT SET TABLEAU KPP-3RD FLOOR PHASE 2 401 PARK PLACE CENTER KIRKLAND, WA 98033

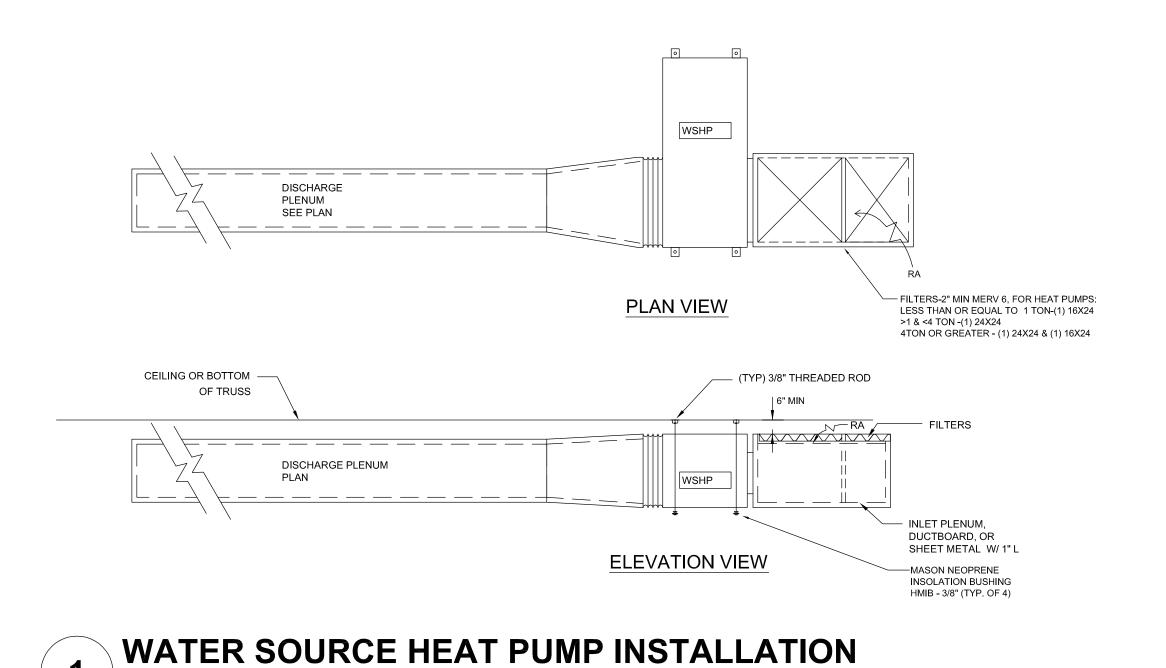
09 May 2016

M1.01

SHEET METAL WORK

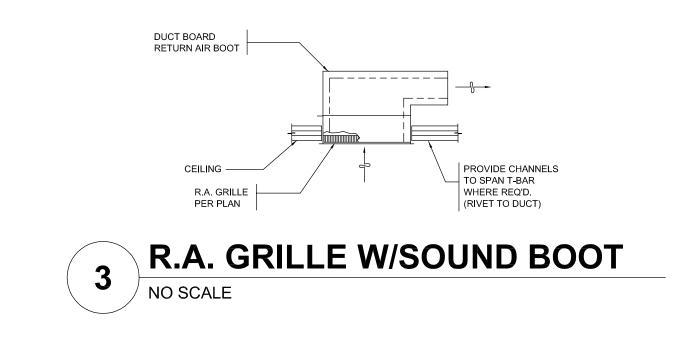
5/4/2016 AS-NOTED

LEVEL 3 - HVAC PLAN SCALE: 1/8" = 1'-0"

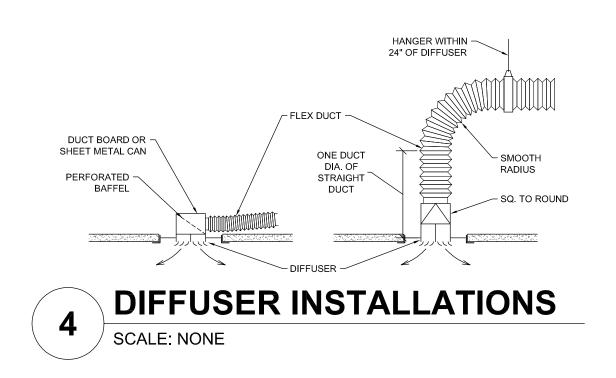


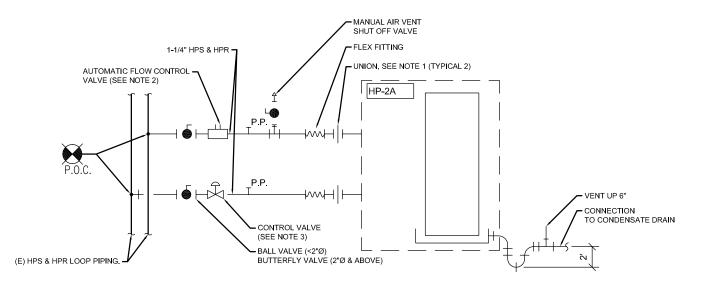
1 RETURN AIR GRILL TYPE AND SIZE PER PLAN. 2 SOUND LINED DUCT W/ 1" LINING. DIMENSIONS PER INSTALLER. AREA TO MEET OR EXCEED AREA OF CEILING RAG 3 DUCTBOARD MAY BE USED. 4 SINGLE DEFLECTION SIDEWALL GRILL, IF OPENING CAN BE SEEN BY OCCUPANTS. SOUND LINED DUCT FREE AREA FLEX DUCT MAX TO MATCH CFL LENGTH 36" AREA OF 3 2 FLEX DUCT TO MEET OR EXCEED AREA OF CEILING RAG CEILING RAG (1 **FLEX TRANSFER ELEVATION PLAN VIEW ELEVATION** AIR TRANSFER DUCT **DUCT TRANSFER** OPITIONAL (FOR USE WITH <110 SQ. IN. RAG ONLY)

AIR TRANSFER DUCT THROUGH CONFERENCE ROOM WALL SCALE: NONE



SCALE: NONE





WATER SOURCE HEAT PUMP NO SCALE

- NOTES:

 1. USE DIELECTRIC UNIONS AT JUNCTION OF DISSIMILAR METALS.
- 2. USE AUTOFLOW PSID RANGE = 1-2 PSI 3. 2-WAY CONTROL VALVE.
- 4. SEE PLAN VIEW FOR LOCATION & PIPE ROUTING.

City of Kirkland mance counts .O. Box 249 Valey Hwy. Auburn, W/ 98071 (253)838-9780 (253)833-1384 RM1163BA

GENERAL NOTES

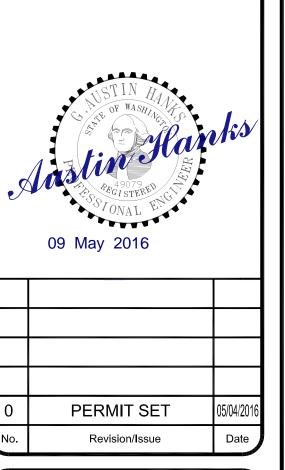


TABLEAU KPP - 3RD FLOOR 401 PARK PLACE CENTER KIRKLAND, WA 98033

M5.01
NECH DETAIL
wn By
GAH
5/3/2016

AS-NOTED